

REMARKS

1. Allowable Claims

Applicants acknowledge with appreciation that claims 7-10, 18-21 and 28-31 were deemed allowable in the above-mentioned Office action. Claim 18 is hereby amended, however, to delete the number "11." which applicants believe was introduced into claim 18 inadvertently by the previous amendment. Applicants thus request that these allowable claims be passed to issuance with this minor formal matter in claim 18 corrected as stated herein.

2. Claim Issues

A. Formal matters

As an initial matter, claims 1 and 11 are hereby amended to delete the redundant "the", which appears to be an artifact of applicants' previous amendment. This amendment is purely a matter of form and is unrelated to the substantive rejections at issue.

B. Finality of rejections

Page 5 of this Office action states that applicants' arguments are moot in view of the new ground(s) of rejection and that this action is made final, presumably because the examiner believes the new grounds of rejection was necessitated by the applicants. However, this is not the case. Newly cited reference, Biederman *et al.* (U.S. patent publication 2002/0081169), was relied on in the outstanding Office action for teaching a "stepper element" and associated limitations recited in the claims. These limitations, as stated in applicants' previous response, were not new, but were introduced into claims 1, 11 and 22 from the then pending claims 32-34 (cancelled in applicants' previous response). Evidence that these limitations did not require new grounds for rejection can be found in the Office action mailed on March 4, 2003 (paper No. 10), at page 3, in which claims 32-34 (reciting a stepper element) were rejected as being anticipated by Kuroyone.

Page 3 of the outstanding Office action (paper No. 12) now states that, "Kuroyone does not disclose the stepper elements [sic] having multiple steps of differing heights and [operating] the servo to position the stepper element in a stepwise

manner” (emphasis added). Applicants agree with this. However, it is a non sequitur to say that simply because the Office now realizes that the previously cited Kuroyone reference does not disclose the claimed invention that the new grounds of rejection (Biederman *et al.*) was necessitated by applicants’ amendment.

Thus, applicants respectfully request that the finality of the outstanding rejections be withdrawn so that the newly cited reference may be considered without the strictures of after final practice.

C. § 103 rejections on the merits

Claims 1, 5, 11, 16, 22 and 26 were rejected under 35 U.S.C. § 103(a) as being obvious in light of Kuroyone (U.S. patent 5,462,424) and the newly cited Biederman *et al.* (U.S. patent publication 2002/0081169). Claims 4, 15 and 25 were rejected as obvious in light of Kuroyone, Biederman *et al.* and Takahashi *et al.* (U.S. patent 5,299,351). Applicants respectfully request reconsideration of these rejections in light of the following remarks.

In that regard, claims 1, 11 and 22 (and thus dependent claims 4- 5, 15-16 and 25-26) were amended in applicants’ previous response, mailed June 3, 2002, to expressly recite a “stepper element having multiple steps of differing heights”. These claims were further amended to recite that the press controller operates the servo “to position the stepper element and change the height of the forming rail in a stepwise manner” based on the measurement from the sensor of the critical dimension of the part.

As stated in applicants’ previous response, none of the previously cited prior art references, alone or combined, teach using part dimension data detected by a sensor to adjust the height of a forming rail nor to operate a stepped element to move the forming rail in a step-wise fashion to form a critical dimension of the part, particularly in which the upper die includes a knocker element that contacts the rail. The newly cited Biederman *et al.* reference also fails to provide such a teaching, even when combined with the other references.

The Office action indicates that the Biederman *et al.* reference discloses the stepper element at paras. 220-224 of pages 22 and 23. Applicants fail to see anywhere

in this passage or in the associated figures 51-54 (or anywhere else) any mention of a "stepper element with multiple steps of differing heights". This passage describes a die and ram arrangement in which the spacing between two parallel rollers 454 can be adjusted to raise or lower the ram 444. In particular, as discussed in paras. 220-222, a ram platform 450 has a base plate 458 that extends between a pair of slides 451 that ride on rails 452. The platform also has brackets 460 that mount the rollers 454 in contact with the ram 444, so as to roll within a circumferential groove 456 in the ram 444. Two threaded members 462 can be rotated to move bushings 464 inward or outward so as to vary the horizontal spacing between the rollers 454, which thereby raises or lowers the ram 444.

None of this describes a "stepper element" as recited in the claims, nor does it even recite moving any element (nonetheless a stepped element) in a stepwise fashion. Moreover, there is absolutely no reason to believe that even if the arrangement disclosed by Biederman *et al.* did these things it could be controlled by the press controller according to the measurement from the sensor of the critical dimension of the part, as required by the claims.

As stated in applicants' previous response, the Kuroyone reference teaches only to use servos 128a and 128b to control the pivotal position of guide members 121 and 122 based on readings from part sensors 185 and 186 to change the angle of surfaces 121a and 122. Thus, no stepped element is used, nor even is the height of the guide member changed at all, nonetheless in stepwise fashion.

Thus, Kuroyone and Biederman *et al.* combined do not teach or suggest the claimed invention. The combined references completely lack teaching to provide pre-set incremental height positioning of the forming rail as is desired to achieve various predetermined part formations, such as various bend angles. Nor do these references teach the use of an intermediate element between the forming rail and servo that mitigates the effects on the servo of impact to the forming rail.

Accordingly, the cited references are believed to be insufficient to render the invention obvious. Applicants respectfully request that this response be entered into the application and that the application be allowed to issue. If the Examiner does not

believe the application be allowable in light of this response, then it is respectfully requested that at least the finality of the rejections be withdrawn.

No fees are believed due for consideration of this response, however, the Commissioner is hereby authorized to charge and fees deemed necessary to Deposit Account No. 17-0055.

Respectfully submitted,

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